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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,648	02/10/2004	Huzeir Lekovic	DWNS.62631	2005

7590 12/05/2006

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EXAMINER	
COONEY, JOHN M	

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/776,648	LEKOVIC ET AL.	
	Examiner	Art Unit	
	John m. Cooney	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 20 *September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Applicant's arguments filed 9-20-06 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai (4,673,696) in view of Kurth et al.(2002/0121328).

Tsai discloses preparations of rigid polyurethane foams through employment of combinations of hydroxy functional acrylates and other polyols in reaction with polyisocyanate components inclusive of alcohol-modified prepolymer packages prepared in the presence of blowing agents and catalysts inclusive of the tertiary amines (see abstract, column 2 lines 37– 59, column 3 line 60 et seq., column 4 line 51, and column 5 lines 8-11 and 27-49, as well as, the entire document). Blowing agents such as chemically active water are readily looked to and envisioned from the teachings of Tsai and are not seen as elements of distinction in the patentable sense. Further, the densities of applicants' claims are values associated with the selection and content of blowing agent and are seen to be readily envisioned from the teachings of Tsai as well.

Tsai differs from the instant claims in that prepolymers derived from the active hydrogen containing compounds as claimed are not particularly set forth. However, Tsai sets forth within his own disclosure the necessary polyols which would be looked to in the making of the prepolymers of applicants' claims. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the polyols and hydroxy functional acrylates disclosed by Tsai as the modifying components in the making of the prepolymers of Tsai for the purpose of providing acceptable active hydrogen functionality in the facilitation of the realization of targeted formation of segmented structures within the practice of the preparations of Tsai in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Tsai further differs from applicants' claims in that hydrophobic bio-polymers such as those of applicants' claims are not particularly utilized. However, Kurth et al. disclose the usefulness of polyols of such natural oils as soybean oils in the preparation of polyurethane foams for the purpose of deriving polyurethane products from renewable resources(see paragraph [0010] and [0012], as well as, the entire document). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the biobased polyols of Kurth et al. as a polyol in the work-up of the products of Tsai for the purpose of employing renewable reactants in deriving useful products in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Applicants' arguments have been considered. However, rejection is maintained for the reasons set forth above. Applicants' argue that Tsai does not offer motivation to utilize the polyols used in the prepolymer of their claims. However, Tsai recognizes employment of isocyanate functional prepolymers in the practice of their invention. Although Tsai does not go into the specifics of the materials used to arrive at the isocyanate functional prepolymers, it is well studied and understood within the purview of the ordinary practitioner that it is OH functional materials that can be employed in the making of the isocyanate functional prepolymers identified by applicants. Examiner maintains that it would have been obvious for one having ordinary skill in the art to have looked to the OH functional materials within Tsai for the purpose of providing the OH functionality needs in the making of the isocyanate functional prepolymers described by Tsai, and it is maintained that examiner's statement of motivation to do so is proper.

Regarding the ranges of functionality values for the polyisocyanate component of applicants' claims, it is held that this element is not a distinguishing feature of applicants' claims over Tsai as Tsai specifically recites that functionalities of 2-4 are preferred in their invention (see column 4 line 53).

Regarding the combination of Kurth et al. with the teachings of Tsai, it is maintained that combination of the teachings for the reasons as set forth above is proper, and applicants' arguments do not overcome the combination set forth. Specifically, Kurth et al.'s lacking of specific reference to "rigid" foams does not render the teachings non-analogous. The teachings are analogous for their shared concern of making polyurethane foams. Further, the claims' recitation of the term "rigid" without

definition of degree of rigidity/flexibility does not serve as a limitation in the patentable sense without said further definition of degree being set forth in the claims.

Claims 1-25 are rejected under 35 U.S.C. 103(a) as being obvious over Lekovic et al.(6,803,390)&(6,699,916), each taken alone, in view of Kurth et al.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

The Lekovic et al. patents disclose preparations of polyurethane foams through formation of isocyanate-terminated prepolymers derived from the reaction of isocyanate

with hydroxy functional acrylates and other polyols followed by reaction of the prepolymer formed with additional polyols in the presence of catalyst and water as a blowing agent (see the documents in their entirety).

The Lekovic patents differ from applicants' claims in that hydrophobic bio-polymers such as those of applicants' claims are not particularly utilized. However, Kurth et al. disclose the usefulness of polyols of such natural oils as soybean oils in the preparation of polyurethane foams for the purpose of deriving polyurethane products from renewable resources(see paragraph [0010] and [0012], as well as, the entire document). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the biobased polyols of Kurth et al. as a polyol in the work-up of the products of the Lekovic et al. patents for the purpose of employing renewable reactants in deriving useful products in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Applicants' arguments have been considered. However, rejection is maintained for the reasons set forth above. It is maintained that the teachings of Kurth et al. are properly combined with the teachings of Lekovic et al. Applicants' arguments do not overcome the combination set forth. Specifically, Kurth et al.'s lacking of specific reference to "rigid" foams does not render the teachings non-analogous. The teachings are analogous for their shared concern of making polyurethane foams. Further, the claims' recitation of the term "rigid" without definition of degree of rigidity/flexibility does

not serve as a limitation in the patentable sense without said further definition of degree being set forth in the claims.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-25 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,803,390 and claims 1-19 of U.S. Patent No. 6,699,916, each taken alone, in view of Kurth et al.

The claims of the Lekovic et al. patents disclose preparations of polyurethane foams through formation of isocyanate-terminated prepolymers derived from the reaction of isocyanate with hydroxy functional acrylates and other polyols followed by

reaction of the prepolymer formed with additional polyols in the presence of catalyst and water as a blowing agent. The claims of the Lekovic et al. patents differs from applicants' claims in that hydrophobic bio-polymers such as those of applicants' claims are not particularly utilized. However, Kurth et al. disclose the usefulness of polyols of such natural oils as soybean oils in the preparation of polyurethane foams for the purpose of deriving polyurethane products from renewable resources(see paragraph [0010] and [0012], as well as, the entire document). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed the biobased polyols of Kurth et al. as a polyol in the work-up of the products of claims of the Lekovic et al. patents for the purpose of employing renewable reactants in deriving useful products in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Applicants' arguments have been considered. However, rejection is maintained for the reasons set forth above. It is maintained that the teachings of Kurth et al. are properly combined with the teachings of Lekovic et al. Applicants' arguments do not overcome the combination set forth. Specifically, Kurth et al.'s lacking of specific reference to "rigid" foams does not render the teachings non-analogous. The teachings are analogous for their shared concern of making polyurethane foams. Further, the claims' recitation of the term "rigid" without definition of degree of rigidity/flexibility does not serve as a limitation in the patentable sense without said further definition of degree being set forth in the claims.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JOHN M. COONEY, JR.
PRIMARY EXAMINER
Group 1700